

# **St. Charles Department of Public Works and Wastewater**

**The St. Charles Parish Public Works Department's mission is to provide the best possible roads and storm drainage systems to ensure the safety and security of the Parish residents and their property.**



## **Public Works Maintains and Improves Critical Parish Wide Infrastructure: Roads, Storm Water Pumping Network, and Grass Cutting of Parish Property and Right of Ways**

- Public Works maintains over **195** miles of roads of varying surfaces such as concrete, asphalt, and limestone.
- Public Works maintains over **390** miles of drainage ditches/ sub surface drainage and over **50** miles of major conveyance canals.
- Public works maintains and implements improvements to our **49** pumping stations.
- St Charles Parish pumping network consists of **115** pumps (electric, diesel, natural gas, and hydraulic) with capacity of over **3.6** million gallons per minute.
- **17** of our pumping stations are equipped with telemetry.



Director  
Public Works  
and Wastewater

Director's Staff

Assistant  
Director Public  
Works

Assistant  
Director  
Wastewater

Accounting &  
Project Cost  
Control

Telemetry

Engineering

Project & Dept  
Document  
Control

Superintendent  
Public Works

Asst Supt East  
Bank

Road Crews

Mechanic Shop

Asst Supt West  
Bank

Road Crews

Mechanic Shop

2 Asst Supts  
Drainage

Equipment &  
PS Operators

Mechanic Crews

Asst Supt  
Special Projects

EB & WB Grass  
Cutting Crews

Carpenter Crew

Collection

Maintenance &  
Treatment

# Critical Drainage Long Range Plan Progress

Initial assessment - **\$117** Million in critical drainage improvements

- **\$14.9** Million projects completed to date
- **\$13.5** Million projects under construction and **\$3.9** Million in design
- **\$14.8** Million pending grants
- West Bank Hurricane Protection Levee
  - **\$0.5** Million in Priority 2 (approved for Funding, not Bonded)
  - **\$4.5** Million in Priority 3 (Request Submitted, pending Approval)
- Rain events
  - In a 12 month period- April 08 thru April 09- five major rain events
    - 4-6 inches of rain- 3 times in Ormond area
    - 4-6 inches of rain- Hahnville area
    - 4-6 inches of rain- Muntz and St. Rose
    - 4-6 inches of rain Des Allemands, Bayou Gauche, Luling, Coronado, Mimosa, Willowdale, Willowridge-
- Historic flooding
  - The greatest amount historic flooding is on the East Bank and associated with major rain events, not wind events.
  - The historic flooding on the West Bank associated with major rain events

# Public Works Construction Projects By Year

	Construction \$	Grant \$
2008	676,464	406,491
2009	3,819,983	380,300
2010	13,478,418	7,393,626
2011	27,487,077	16,887,557
Totals	45,461,942	25,067,974

# Public Works Construction Projects By Infrastructure Class

	Construction \$	Grant \$
Pump Stations	22,358,015	17,481,571
Drainage	6,057,175	3,930,011
Roads	5,922,858	643,991
Wastewater	6,124,213	352,845
Other(PW Office, Yard, Bike Paths)	4,999,681	2,659,556
Totals	45,461,942	25,067,974

# Public Works

## Summary of Accomplishments

### Drainage Improvements By Year

	Ditches/Culverts Cleaned And Repaired Ft	Canals Cleaned Miles	Pump Station Telemetry Added and Upgraded
2008	Not Available	Not Available	2
2009	173,900	20.8	2
2010	241,911	34.5	2
2011	130,989	30.0	3
Totals	546,800	85.3	9

# Public Works

## Summary of Accomplishments

### By Year

	Council Work Orders #	Department Work Orders #
2008	Storms Gustav & Ike 62	4,835
2009	371	6,500
2010	277	6,500
2011	167	4,147
Totals	877	21,982

# PARISH LEVEES

## Federal Projects

- E/B now at 100 year protection
- Cross Bayou Pump Station 95% complete
- Urban Storm Water Study
  - 50%- 50% cost share
  - Approximately 40 potential projects
- West Shore(Montz) Corp Feasibility Study
- West Bank and Vicinity Levee - Ama

## Parish Projects

- Magnolia Ridge preparing new permit to allow enhanced pumping during non-storm events
- Willowridge permit approved and preparations underway to acquire land
- Ellington comment period complete waiting on permit approval from DNR and COE

# PUMP STATION IMPROVEMENT PROJECTS



# Prescott Pump Station





# Ama Bar Screen Cleaner



# Cousin's PS Bar Screens





# Paradis PS Bar Screens





# Replace Pump and Install Cover New Sarpy PS





# Schexnayder PS Bar Screens





# Replace NG Engines Destrehan #1 PS



# Lakewood PS Auto Bar Screen





# Eighty Arpent PS Upgrade





# Coronado Park PS Upgrade





# New Sarpy PS Auto Bar Screens





# Engineer's Canal Auto Bar Screen





# Dianne PS Auto Bar Screen





# Boutte PS Upgrade





# Additional Pump at Walker PS



# **DRAINAGE IMPROVEMENT PROJECTS**



# Maryland Dr Crossing





# Evangeline Rd Culverts





# Thoroughbred Ln Culverts





# Michael Dr Culverts



# Keri and Warren Dr Culverts





# Ormond Blvd Culverts





# Dunleith Canal Stabilization



**ROADS**



# Roads



# WASTEWATER PROJECTS



# Acorn & Sharon Sewer Improvements





# WWTP New Secondary Inlet Well and H<sub>2</sub>S Control





# Typical Concrete Wall Repair and New Lining



# Priority Lift Station and Force Main Upgrade Project





# OTHER SUPPORT PROJECTS

Bike Paths



Courthouse Emergency Generator



Rathborne Walking Trail





# Public Works Office Relocation



# Public Works WB Yard Relocation





**MAINTENANCE**

# Airline Canal





# Davis Diversion Canal Cleaning



# Parish Line Canal





# Prescott Canal





## Canal Bank Sheet Pile Beaupre



## Bank Stabilization Destrehan #2 PS





# Willowridge Ditch Relocation



# Walker Canal Cleaning





# Grass Cutting



# Ditch Cleaning





# Before and After





# Culvert Cleaning





# Debris and Trash Pickup



# Tree Trimming and Removal





# PUMP STATION GENERATORS

# Permanent Pump Station Generators

## **Pump Stations with Permanent Generators**

- Dianne
- Destrehan #2
- NOLA
- Randolph
- Boutte
- Lakewood
- Paradis
- Walker
- Destrehan #1

## **In Process of Installing**

- Cousins
- 80 Arpent
- Coronado #2
- Oakland
- Davis Diversion
- Barton
- New Sarpy



## Randolph PS Generator



## NOLA PS Generator



# MAJOR RAIN EVENT RESPONSE



# December 2009 Response





# TS Lee Response





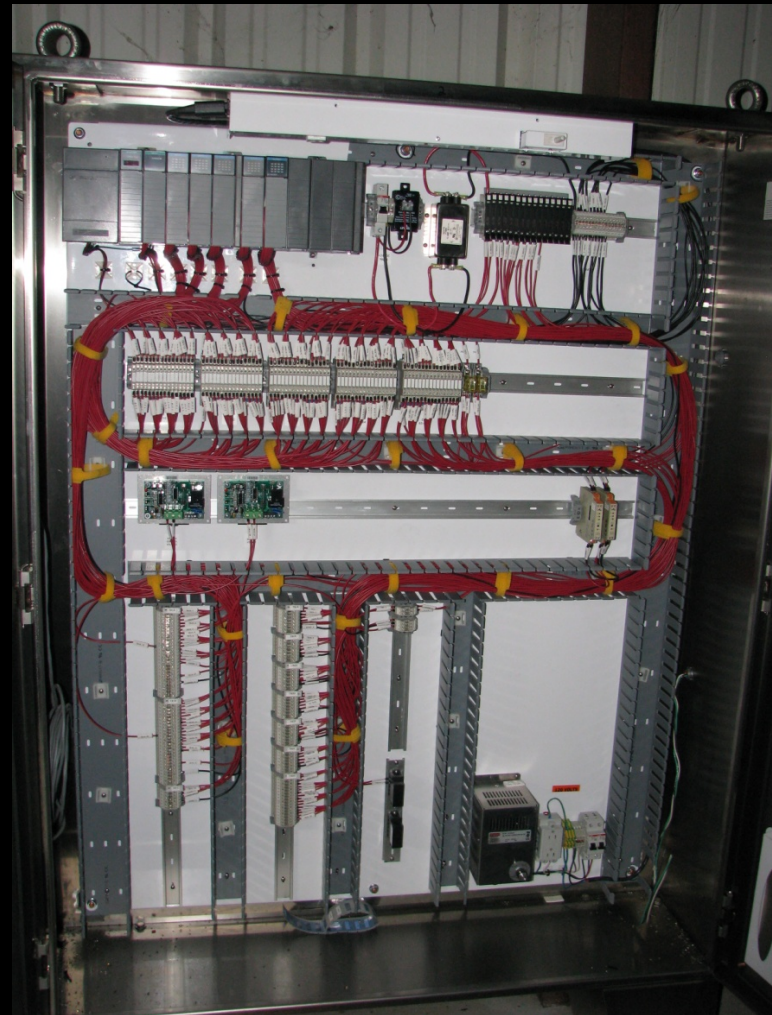
TELEMETRY

# Telemetry Control Panel

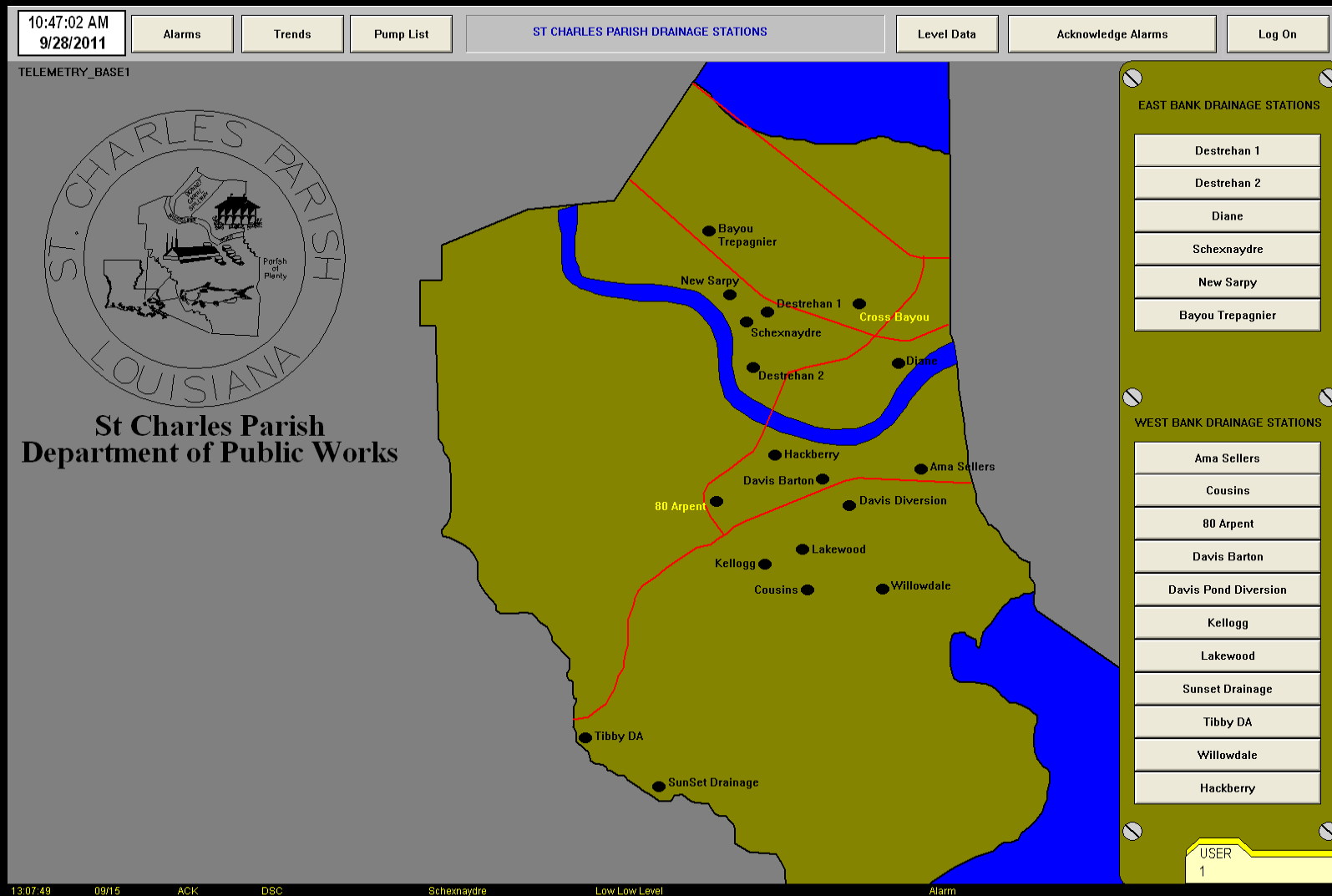




# Telemetry at Destrehan 1 PS



# Telemetry Control Screen





# Telemetry Weather Monitoring



# Telemetry Upgrades

## East Bank Telemetry Stations

- Destrehan 1                      added bar screens 2011
- Destrehan 2                      added bar screens 2010
- Schexnarydre                    added bar screens 2010
- New Sarpy
- Trepagnier
- Diane
- Cross bayou                      to be added end of 2011

## West Bank Telemetry Stations

- Ama Sellers
- Cousins
- Davis Barton                      bar screens added 2008
- Davis Pond
- Kellogg                              bar screens added 2009
- Lakewood                           bar screen added 2009
- Sunset                               station added 2008
- Tibby DA
- Willowdale
- Hackberry
- 80 Arpent                           system upgrade 2011

## Future Additions

- New Sarpy                              automate bar screens
- Dianne                                  automate bar screens
- Cousins                                  automate bar screens
- Willowdale                            total system upgrade
- Engineers                              new system
- 4<sup>th</sup> Street                                new system



# St. Charles Department of Public Works and Wastewater

**THANK YOU**

